The Effectiveness of English as Medium of Instruction in University: Case of Students and Lecturers' Performance Evaluation in Undergraduate Program

Riatu M. Qibthiyyah and Sartika Djamaluddin

Department of Economics, University of Indonesia

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Riatu M. Qibthiyyah
Department of Economics, University of Indonesia

Sartika Djamaluddin
Department of Economics, University of Indonesia

Abstract

In University of Indonesia, Faculty of Economics and Business is a pioneer for the adoption of English as medium of instruction (EMI) in the undergraduate (regular) program. This study aims to review the effectiveness of EMI through assessment of students' academic performance and lecturers' evaluation in classes that used EMI. Based on 2013 data, our study found that students' performance in EMI classes, in general, is instead slightly significantly higher than in BMI (Bahasa Indonesia as Medium of Instruction) classes. Whether the students perform better in EMI than in BMI classes also vary across subject course. On the case of lecturers' performance viewed from students' evaluation (EDOM), in overall, there is no significant different in EDOM scores between EMI and BMI classes. Disaggregated into category of EDOM, our study found a higher performance of lecturers' evaluation on EMI classes in comparison to BMI classes, only on the aspect of class management. From our study, there is no evidence that adoption of EMI may cause negative effect to students' performances in understanding topic of the courses and or impedes lecturer teaching effectiveness.

Keyword: higher education, English – medium instruction, student evaluation, academic performance

JEL Codes: I23, I21

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1. Background

Based on Universitas Indonesia Strategic Planning (*Rencana Strategis* UI 2012-2017), the university is committed to promote its international presence either on the case of teaching as well as on research. As stated in Rector Decree, the move to promote "internationalization" of its academic program and on research is part of the university strategic plan to attain its vision to be world-class university.

The adoption of EMI in higher education of non-english speaking countries has been common phenomenon especially since the 1990s (Kirkpatrick 2014, Chang 2010). In the context of University in Asia, the adoption of EMI is mostly viewed as options that must be taken in a global world when knowledge movement is not only plausible but has fastly developed.

EMI adoption in the University, and thus how we can assess its effectiveness, should be viewed on how EMI is adopted, whether it is embedded in the existing academic program or set up of new scheme of program or classes. Studies on the effectiveness of EMI adoption, especially on the scope of higher education, are in need especially as its adoption to some extent also associates with creating a new type of deliveries and program.

The literatures exploring effectiveness of EMI in higher education, mostly conducted in case of European Universities and a few of studies use case study of Asian University. In this case, many of the literatures focusing on attitudes of either students or lecturers toward adoption of EMI (Chang 2010, Jensen & Thogersen 2010), and to our knowledge there is not yet a study that conduct assessment of EMI in terms of students' performance and or the context of lecturers' evaluation.

This study aims to assess EMI in courses that are offered in undergraduate program, in which specifically address the following research questions:

1. Are the classes taught in English would have no difference in students' performance than regular classes?
2. How is the effect of EMI on lecturer's evaluation score, implying from whether lecturers' evaluation is relatively similar between teaching classes taught in English and regular classes?

We use the case study of EMI adoption in Faculty of Economics Undergraduate Program, covering three study programs: Economics, Management, and Accounting.

2. Adoption of EMI in FEB UI

The adoption of EMI in FEB UI is started in the year of 2004[2], in which there is some of credit courses with English as Medium of Instruction that are offered to students. This partial adoption of EMI is embedded in the curriculum that required students in (regular) undergraduate program in FEB UI to take a minimum credit of 15 credits for classes that taught in English (EMI classes), for the Economics and Management Undergraduate Programs, and a minimum of 18 credits for Accounting Undergraduate Program.

This study focuses only on partial adoption of EMI in undergraduate program. Thus, it does not asses a program that overall delivered in English. An example of full adoption of EMI, in undergraduate program in Faculty of Economics and Business University of Indonesia, is an undergraduate program that is called as KKI (*Kelas Khusus Internasional*). KKI is an undergraduate program with full EMI adoption, in which its courses that combined courses in Economics, Management, and Accounting, are all taught using English given a degree that is offered is a joint-degree from FEB UI as well as from the partner University.

Between these two variations of EMI adoption, as previously stated, our study limited its coverage on partial adoption of EMI in regular undergraduate program. Table 1 shows the profile of EMI adoption in 2014 even semester ranging from number of classes, courses, and lecturers, as a comparison to profile in 2005. As shown in Table 1, number of courses that offered in English is around 20% of total courses, except for the case of Management undergraduate program, which is around 8%. Meanwhile, the ratio of EMI classes to some extent is also in the range of 20%, in which slightly lower as for the case of Economics Undergraduate Program. This variation in the profile has shown that, to some extent, there is small proportion of EMI classes offered in in comparison to total classes offered for a given course. In this case, the number of classes that are offered could be more than 15 parallel classes if the course is required faculty course, the number of classes taught in English is generally range to only 2-3 classes.

[2] Stated in Academic Guideline Book 2004, but the adoption in three undergraduate programs started in 2005 referring to 15 credits of EMI classes for Economics and Management Undergraduate Programs, and 18 credits for Accounting Undergraduate Program.

Table 1. Profile of EMI-Classes in Undergraduate Programs in 2005 and 2014

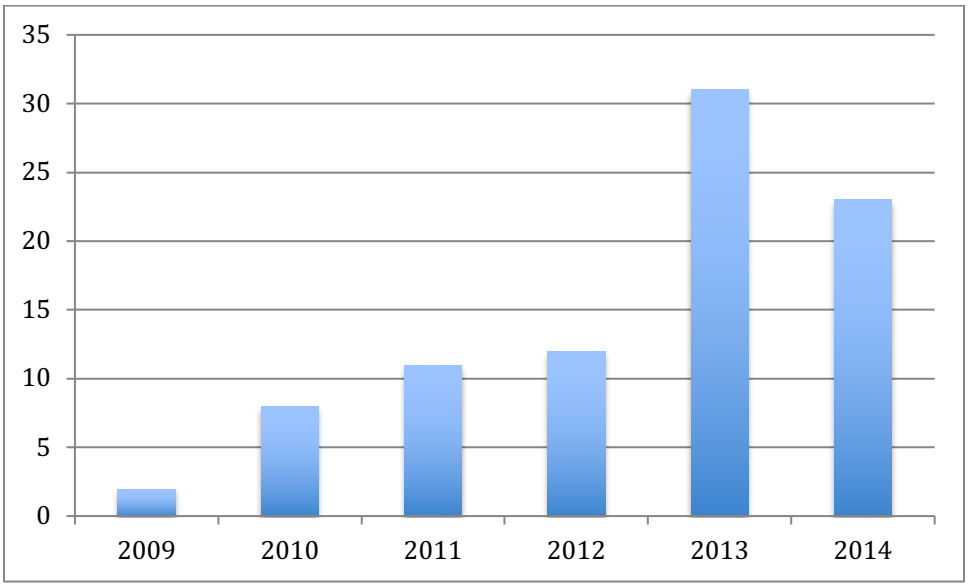
Profile	2005	2014
Economics Undergraduate		
% of EMI-Courses	3.33	23.29
% of classes with EMI	1.27	16.96
Number of lecturers with EMI-classes assignments	2	36
Management Undergraduate		
% of EMI-Courses		8.11
% of classes with EMI		20.00
Number of lecturers with EMI-classes assignments	-	27
Accounting Undergraduate		
% of EMI-Courses	20.00	17.74
% of classes with EMI	14.81	21.57
Number of lecturers with EMI-classes assignments	28	58

Source: Authors' calculation based on Dean Decree on Lecturers' Assignment and English Learning Center (ELC), Faculty of Economics and Business, Universitas Indonesia.

Comparing among the three undergraduate programs, as shown in Table 1, high adoption of EMI classes is in Accounting undergraduate program. However, number of EMI-Courses which reflect a variation of course offered has decline in 2014, although the ratio of EMI classes has increase from period of 2005 to 2014. There are courses, in Accounting and Management Undergraduate Program, in which all of its classes are offered as EMI-classes.

To some extent, the initiatives of EMI adoption is also followed by a flow of exchange students, especially referring to inbound exchange students. Nonetheless, a relatively small number of EMI courses, in general, would also limits the possibility of exchange students to choose variety of courses in a given program, as well as limitation on the length of exchange program that is taken. Figure 2 shows the number of exchange students from foreign universities from a period of 2009-2014. Note that the number of exchange students (inbound) corresponds to the accumulated number of exchange students accepted in two semesters, odd and even semester, and thus for the data for year 2014 only refers to one semester (odd semester). In this case, over period of 2009-2014, there is an increase in number of exchange students especially for 2013-2014.

Figure 2. Number of exchange students (inbound) in Undergraduate Programs: 2009-2014



Source: Academic Office, Faculty of Economics, Universitas Indonesia

3. Literatures: How are the effectiveness measured?

Our analysis on the effectiveness of EMI adoption would basically depends on the objective referring to the statutory objective by the faculty administrative. Nonetheless, as the policy of EMI-courses on the case of undergraduate program is more of discretion at the Department level, there is no stated statement that describes the objective of EMI adoption. The regulatory framework of curriculum and teaching policies only applies if it is stated in terms of Decree in which the lowest is at the Faculty level, i.e. Dean Decree.

Numerous studies explores on the motivation in adopting EMI either on education level in general as well as on higher education in particular (Dearden 2014, Knight 2008, Coleman 2006, Kirkpartrick 2010). Kirkpartrick (2010) pointed that the objective of Asian countries such as Singapore or special zone of Hong Kong continues to adopt EMI in its higher education is to become education hub or taking advantage of students mobility, the case that also engaged in European countries higher education on the policy to adopt EMI in its courses offering (Coleman 2006, Knight 2008). In general context, Dearden (2014) stated that EMI, referring to full EMI adoption, to most cases is introduced as an option of higher education to survive and stay competitive which also imply of the financial motivation on the adoption of EMI.

However, at least on the context of FEB UI and given the context of a relatively fixed tuition in its undergraduate (regular) program, the motivation of implementing English as medium of instruction in some undergraduate' courses is not likely to be

financial, but more as part of the university international collaboration, as in the case of enhancing exchange students, participating in international accreditation, and to some extent may also include the objective to improve English-skill of its students (or its graduates).

Analysis on the effectiveness of EMI is mostly indirectly explored on basis of stakeholders' perception, referring to whether there are positive or negative attitudes among students and or lecturers on the adoption of EMI. It is perceived to be effective through the extent of students and or lecturers' positive attitudes on EMI-classes. Based on case study of Taiwan, Chang (2010) shows that students tend to view of EMI-classes as improving their English proficiency especially on listening proficiency while lecturers' mostly view that EMI-classes associated with less active students' engagement in the class.

Jensen and Thogersen (2011), using the case of Danish University, shows that lecturers' attitude toward adoption of EMI is relatively positive on the case of young lecturers. Flowerdew (1998), uses case study of Hong Kong EMI adoption in its higher education. He found that based on lecturers' perspective, the adoption of EMI to some extent is hampered by lack or inadequate English skill of the students, in which then influenced non-optimal teaching delivery of the course. Meanwhile Airey (2011) viewed it is a relatively inexperienced lecturer in delivering course class in second language (L2) that resulted to non-optimal teaching delivery for the students.

As stated earlier, the effectiveness of EMI adoption in this study is measured using a more direct indicator to indicate effectiveness of course teaching delivery, which is through students final score and lecturers' evaluation. There are still few studies explores on EMI courses assessment referring to the performance of its students and or lecturers (Ho & Man 2007). Ho and Man (2007), though focusing not on higher education but rather on primary and secondary education level on case of Hong Kong, finds of no difference in PISA test scores of students that come from school with EMI and school with CMI -- Chinese as Medium of Instruction.

The use of students' evaluation on lecturer's teaching delivery effectiveness is still debatable, on the issue that whether this indicator is a good indicator of the teaching performance (Emeri et al. 2003). The critique on the use of students' evaluation on lecturers teaching delivery if it is used as only or major indicator to review lecturer's effectiveness mainly falls on the perspective that there may be a trade-off between the objective to attain learning outcome as needed by the users or prospective employers and to the perspective and or current state of students preference. However, a competing view by Marsh (1993) stated that student evaluation has some solid advantages to be used as teaching effectiveness indicator, as he stated that student evaluation to lecturer are: 1) multidimensional, 2) reliable and stable, 3) primarily a function of a lecturer's teaching rather than of the course that is taught, 4) relatively valid against a variety indicators of effective teaching, 5) relatively unaffected by a variety of variables hypothesized as potential biases to the ratings, and 6) seen to be useful by lecturers as feedback for their teaching, by students for

use of course selection, by administrators for use in personnel decisions, and by researchers.

4. Methods and Data

The nature of the EMI that is partially adopted creates a unique form of dataset that can be assessed in terms of inter-courses and intra-courses. Using the student's course final grade from SIAK-NG and student evaluation on lecturer's teaching delivery (EDOM), we construct the pairwise means t-test to identify whether there is a significance differences on measured indicator, which are students or lecturer performance, between EMI-classes and BMI classes for the following categories:

1) an overall measured in FEB UI undergraduate program in FEB UI;
2) department of field of study in the undergraduate program, referring to the accounting, management, and economics field of study;
3) courses that are differentiated as "field" and "methods" courses; and
4) specific course subject.

The hypotheses to test the difference in the student performance are as follows:

1. **H0**: is there no difference in students' final scores between EMI classes and BMI classes in FEB UI undergraduate programs?
2. **H0**: Is there no differences in students' final scores between EMI classes and BMI classes in Economics undergraduate program?
3. **H0**: Is there no differences in students' final scores between EMI classes and BMI classes in Management undergraduate program?
4. **H0**: Is there no differences in students' final scores between EMI classes and BMI classes in Accounting undergraduate program?

We also set hypotheses to test whether there are differences in lecturer's performance, as stated in the following statements:

1. **H0**: is there no difference in overall EDOM scores between EMI classes and BMI classes?
2. **H0**: is there no difference in average EDOM scores on the aspect of learning materials a between EMI classes and BMI classes?
3. **H0**: is there no difference in average EDOM scores on the aspect of learning materials a between EMI classes and BMI classes?
4. **H0**: is there no difference in average EDOM scores on the aspect of learning materials a between EMI classes and BMI classes?
5. **H0**: is there no difference in average EDOM scores on the aspect of learning materials a between EMI classes and BMI classes?

To determine the critical region of whether to accept or reject the hypothesis (H0), we use assumption of 5 percent significance level, as the following:

$$|t| > t_{\alpha/2}$$

Where t-test is defined as $t = \frac{(\bar{X}_1 - \bar{X}_1) - (\mu_1 - \mu_2)}{\sqrt{S_p^2\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$, $\bar{X}_1$ is mean sample of EMI classes, $\bar{X}_2$ is mean sample of BMI classes. μ_1 is population of EMI classes, μ_2 is population of BMI classes, S_p^2 is varians of difference in means (pooled variance).

$$S_p^2 = \frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{n_1 + n_2 - 2}$$

Where n1 is number of EMI observation, n2 is number of BMI observatiion, S_1^2 is varians of EMI classes, S_2^2 is varians of BMI classes.

Basically, the review of the effectiveness of EMI classes based on student final score is based on course sampling, while on lecturer teaching effectiveness would be based on courses as well as lecturers' sampling.

Students' Course Final Score and Courses Sampling

As noted in the literature, there are various indicators to reflect student performance, and student final score, is only one of them. We use student's course final score that is extracted from SIAK-NG, an academic system applied in University of Indonesia, in which the period of data is year of 2013. The students' final scores could be translated into course grade as shown in Table 2.

Table 2 Range of Final Scores and associated Grade

Grade	**Minimum**	**Maximum**
A	85	100
A-	80	85
B+	75	80
B	70	75
B-	65	70
C+	60	65
C	55	60
D	40	55
E	0	40

Source: SIAK-NG

To compare students' performance between non-EMI or BMI-classes (first language, L1) and classes that used EMI (second language, L2), we select only parallel classes of a course that are offered for BMI as well as EMI-classes. As shown in previous sections, there are courses that are only offered in BMI in which is the majority of courses, courses that offered both BMI and EMI-classes, as well as courses that are all of its classes are offered in EMI-classes. Therefore, in reviewing students' final score, as the number of observations is higher for the data from non-EMI classes than EMI-classes, we adopt a test for pooled observations.

Student's evaluation on Lecturer (EDOM), Courses, and Lecturers Sampling

The student's evaluation on lecturer (EDOM) is filled out by the students on each course from a period of mid-term to prior of final score is announced in a voluntary basis. The questionnaire consists of four components: 1) learning materials, 2) learning process, 3) class management, and 4) learning evaluation. The detail of EDOM questionnaire can be viewed in Annex 1.

On the case of reviewing the effectiveness of teaching in EMI-classes, only EDOM of a lecturer that at least has one assignment of teaching EMI-classes that are included in the sample. This is to follow Marsh (1993) that student evaluation is more of a tool to measure teaching effectiveness by a lecturer than a course.

5. Results

Table 3 up to Table 5 show results of mean difference on students' performance proxied by students' final scores as well as on lecturer performance use a proxy of EDOM scores.

Statistical Results on Students Performance

The results in Table 3 shows the comparison of students final score between EMI and BMI classes, on overall sampling courses as well as based on classification as stated in the previous section. As overall, there is a significant difference between EMI and BMI classes, in which in terms of students' performance, students' final scores in BMI classes is relatively higher than in EMI classes. As shown in Table 3, average of final scores in BMI classes is 72.78 while average final score in EMI classes is slightly lower which is 71.82.

Table 3. Average of Students' Final Scores in Overall Three Departments: Undergraduate Programs

Component	EMI Classes	BMI Classes	Difference in Means
Overall Mean	71.82	72.78	
Variance	173.57	195.51	
Observations	1134	1998	
Pooled Variance	187.57		
t-stat	-1.87		Significant*

*in alpha 5 percent (one-tail)

Table 4 shows average students final score on each subject (course), which is a sample from each undergraduate program, and thus students' final scores in EMI classes as well as on BMI classes in each Undergraduate Program referring to Economics, Management, and Accounting Undergraduate Program. In contrast to the results shown in Table 3, as shown in Table 4, it can be viewed that when students

final score is classified into each undergraduate program, there is no significant difference of average students final scores between EMI classes and BMI classes.

The variation existed in regards on students' performance as the average of students' final scores is specified on course subject level. For Economics Undergraduate, we found differences on students' final scores between EMI and BMI classes on the subject of Microeconomics and Mathematics for Economics and Business. From Table 4, for the course of Microeconomics, the average of students' final scores in BMI classes is 72.09 is statistically different with average of students' final scores in EMI classes, which is 66.67.

On Mathematics for Economics and Business course, shown in Table 4, the average of students' final scores in EMI classes is instead higher than the average of students' final scores in BMI classes. There is a significant difference in means between students' final scores between EMI and BMI classes, in which there is higher average of students final scores in EMI classes in comparison to BMI classes also occurred for the course subject of Advance Financial Accounting, a course that is offered in Accounting Undergraduate Program. A similar pattern also occurs in the case of course subject Introduction to Management, in which the average of students final scores is significantly higher in EMI classes than in BMI classes.

Table 4. Average of Students' Final Scores in Economics, Management, and Accounting Undergraduate Programs

Courses	**EMI Classes**	**BMI Classes**	**Difference in Means**
Economics Undergraduate	71.7	70.9	NS
Microeconomics	66.67	72.09	S*
Mathematics for Economics and Business	76.06	67.76	S*
Statistics for Economics	77.4	76.4	NS
Macroeconomics	64.7	64.7	NS
Management Undergraduate	76.7	75.2	NS
Financial Management	74.57	73.3	NS
Marketing Management	72.67	76.8	NS
Introduction to Management	78.6	73	S*
Accounting Undergraduate	76.7	75.2	NS
Advance Financial Accounting	70.63	59.8	S*
Financial Accounting	70.62	-	-
Accounting Information System	-	77.78	-

Notes: NS: Not significant S: Significant *in alpha 5 percent (one-tail and two-tails).

Statistical Results on Lecturers' Evaluation

Data from students' evaluation to lecturer shows that there is not much of a different on teaching between EMI classes and BMI classes. The average EDOM's scores for lecturers teaching EMI classes is higher than evaluation on teaching BMI classes. Aggregated for both EMI classes and BMI classes, the teaching in either classes is still considered to be effective, as average scores of EDOM in both classes falls in category of good teaching effectiveness. As shown in Table 5, average scores of EDOM in EMI classes is 4.90 while for the case of BMI classes is 4.70.

Table 5. Means of EDOM Score

Components	Mean of EMI Classes	Means of BMI Classes	Difference in Means
Overall EDOM	4.90	4.70	NS
Learning Materials	4.89	4.78	NS
Learning Procces	4.90	4.75	NS
Class Management	4.93	4.70	S*
Learning Evaluation	4.86	4.75	NS

Notes: NS: Not significant S: Significant *in alpha 5 percent.

From Table 5, it is shown that on learning materials, lecturers teaching either in EMI or BMI classes are viewed to be good in teaching materials preparation. There is no significance difference in average scores of EDOM on the component of learning materials preparation between lecturers teaching in EMI classes and BMI classes. The average scores of EDOM on Learning Materials is 4.89 in EMI classes and 4.78 in BMI classes.

Meanwhile, on the component of learning process, as shown in Table 5 for both EMI and BMI classes, the lecturers seem to be able to create learning environments that are viewed as relatively effective. Though the average scores of EDOM for this component in EMI classes (4.89) is higher than in BMI classes (4.78), there is no significance difference in means between EDOM learning process score in EMI and BMI classes.

On the component of class management, there is a difference between EDOM scores in EMI and BMI classes. The average of EDOM class management score is higher in EMI classes than in BMI classes. There is a significant difference for the case of average of EDOM class management score in EMI classes in comparison to BMI classes. The average of EDOM class management score in EMI classes is 4.93 while the average of EDOM class management score in BMI classes is 4.7. Though to some extent, there are quite of a mix in the results, we view that based on EDOM score, all lecturers' class management is considered to be adequate or good.

For the final component, the students tend to view that there is not much of a different between learning evaluation on the case of EMI as well as BMI classes. These students

view implies that there should be no different treatment of students' process engaged in both EMI and BMI classes. Though there is statistical significance in difference in means, referring to class management that is perceived to better in EMI class than in BMI classes, lecturers can still receive feedbacks from certain type of policies.

Exploring the Effect of Medium of Instruction on Performance: Regression Analysis

The results of stastistical analysis has assumed that there are no variation in student characteritics in regards to the comparison between EMI and BMI classes on student performance. A smilar assumption is also applied on the case of comparing lecturers' performance in terms of student evaluation score between EMI and BMI classes.

On testing the effect of English as medium of instruction on students' performance, the simple regression model is set up as follows:

$$y_i = a_o + a_1 X_{1i} + \Sigma a_k X_{ki} + u_i$$

where, y_i refers to the student's performance represented by student's final score in sample of courses, the courses that are offered both of EMI classes and BMI classes are represented by dummy variable on medium of instruction (X_{1i}). The other explanatory variables are represented in X_{ki} where k=1,...,p number of other explanatory variables, which includes type of course subject, student's existing GPA, and student's EPT (English Proficiency Test) score.

Table 6 shows the results of student performance's, in which in contrast to the hypothesis, English as medium of instruction used in the classroom, instead associates with higher student's final scores. Given that there is no evidence that EPT scores associate directly to students' final score in related course, as shown in Table 6 of the no significant coefficient of EPT, may imply that there are not much of a hurdle for the students that are not fluent in English to still show good performance in the class.

Table 6 Regression Results on Student's Performances

Variabel	**Student's Score**
Medium of Instruction (1 BMI; 0 EMI)	-3.31**
Type of Courses (1 non-methods course 0 methods course)	11.78**
GPA	31.11**
EPT Score	0.01
Constant	-38,96**

5. Conclusions

The use of English as Medium of Instruction (EMI) that has been adopted in higher education in Indonesia is viewed as part of universities to expand network on teaching and students' exposure. As EMI classes open opportunities of more courses can be offered for exchange students as well as topics delivered by professors from other Universities. In undergraduate program in Faculty of Economics and Business, there is a significant of exchange students especially in 2013.

Based on pooled data in 2013, there is a significant difference on students performance between EMI and BMI classes. On average, students performed better in EMI classes than in BMI classes. However, disaggregated in to course subject level, there is variation on students' performance on course subject level across undergraduate program (Economics, Management, and Accounting). In Economics undergraduate program, course subject of Macroeconomics and Statistics for Economics and Business are example of courses in which students have a similar performance either in EMI classes or in BMI classes. The students are better performed on Microeconomics classes that are taught in Bahasa Indonesia, though the finding is reversed for course of Mathematics for Economics and Business.

On Management undergraduate program, students performance on Introduction to Management course are better in EMI classes than BMI classes. Meanwhile, the students performance in financial management course subject tend to be relatively similar in both EMI and BMI classes. In regards to Accounting undergraduate program, students in course subject of Advance Financial Accounting in EMI classes tend to perform better than students that have taken BMI classes in that course subject.

In the context of students evaluation to teaching effectiveness (EDOM – *Evaluasi Dosen oleh Mahasiswa*), lecturers EDOM scores are higher in EMI classes than in BMI classes. This finding shows that there is no support, at least from this study, that teaching effectiveness is different in EMI classes in comparison to BMI classes. The EDOM score on teaching effectiveness is slightly significantly higher on the case of class management in EMI classes than in BMI classes. To some extent, this finding may also indicate a relatively less hurdles, and instead strong appreciation from the students, on teaching ability of lecturers in delivering materials using English.

Our findings support the adoption of EMI classes. There is sligthly a relatively better students performance in EMI classes in comparison to BMI classes. But in the level of course subject, the results tends to be vary. In addition, on lecturers' teaching effectiveness, there is also no difference in lecturers performance in EMI classes in comparison to BMI classes. This study limits its coverage on relatively similar cohort of students and not further explore on the reasons that made the students as well as lecturers tend to better performed in EMI classes. Despite the limitation, the findings seem to at least suggest that one should not be apriory in regards to adoption of EMI,

referring to the opinion that it might be negative to students performance in understanding materials and or impedes lecturer teaching effectiveness.

6. References

Academic Guideline 2005.

Airey, J. 2011. "Talking about teaching in English: Swedish university lecturers' experiences of changing teaching language." *Iberica* 22: 35-54.

Chang, Y.Y. 2010. "English-medium instruction for subject course in tertiary education: Reactions from Taiwanese undergraduate students." *Taiwan International ESP Journal* 2(1): 55-84.

Coleman, J.A. 2006. "English-medium teaching in European Higher Education." *Language Teaching* 39(1): 1-14.

Dearden, J. 2014. "English as medium of instruction – a growing global phenomenon: phase 1." *Going Global 2014*. British Council.

Emery, C.R, Kramer, T.R., & R.G. Tian. 2003. "Return to academic standards: a critique of student evaluations of teaching effectiveness." *Quality Assurance in Education* 11(1): 37-46.

Flowerdew, J., D., Li, & L. Miller. 1998. "Attitudes towards English and Cantonese among Hong Kong Chinese University lecturers." *TESOL Quarterly* 32(2): 201-231.

Ho, E.S., & E.Y. Man. 2007. "Student Performance in Chinese Medium of Instruction (CMI) and English Medium of Instruction (EMI) Schools: What we learned from the PISA study." *Education Policy Studies Series*. The Chinese University of Hong Kong.

Jensen, C., & J. Thogersen. 2011. "Danish University's lecturers' attitude towards English as medium of instruction." *Iberica*, 22.

Kirkpatrick, A. 2014. "English as Medium of Instruction in East and Southeast Asian Universities." Dynamic Ecologies. Multilingual Education. Vol. 9. Springer Dordrect.

Knight, J. 2008. *Crossborders Higher Education*. Annual Conference of the Comparative and International Education Society, New York, 17-21.

Manh, L.D. 2012. "English as a medium of instruction in Asian universities: The case of Vietnam. Commentary." *Language Education in Asia* 3(2): 263-267.

Marsh, H., W. & M. Bailey. 1993. "Multidimensional Students' Evaluation of Teaching Effectiveness: A Profile Analysis." *Journal of Higher Education* 64 (1): 1-18.

Universitas Indonesia, *Rencana Strategis Universitas Indonesia 2012-2017*.

Annex 1 EDOM Questionnaire' Components

A. **Learning Materials**

1. Lectures stated clearly the teaching plan in the start of the beginning of the class
2. Teaching materials is constructed in systematic to make students clearly see the link across the materials.
3. The teaching method is used to facilitate the students in active learning
4. The teaching method is used to help students understand the materials

B. **Learning Process**

5. Lecturer taught the course materials clearly
6. Lecturer is able to create a conducive learning environment in the class
7. Lecturer gave examples that can clarify the difficult concept
8. Lecturer has clear answered to the students questions
9. Lecturer gave constructive feedbacks
10. Lecturer applied teaching learning as planned
11. Lecturer effectively used supporting tools (i.e. LCD, Projektor/OHP/Board/etc.)

C. **Class Management**

12. Lecturer start the class or practicum session on time
13. Lecturer gave opportunity to students to state her or his opinion
14. Lecturer is willing to help students that have difficulties in learning
15. Lecturer is sensitive to students' condition
16. Lecturer can receive feedbacks from the students
17. Lecturer has consistently applied the regulation related to approaches taken in the class

D. **Learning Evaluation**

18. The scores of learning materials (i.e. Quiz, Problem Set. Mid Exam, Final Exam, Practicum, etc) is in line and is stated in the teaching plan
19 The weight score on course evaluation is consistent with the level of effort
20. Problem Set and Exams scores has accurate reflection on student ability

Average of Overall Scores

Annex 2 Detail Results

t-Test: Two-Sample Assuming Equal Variances

Overall

	English	*Bahasa Indonesia*
Overall Mean	71,82871693	72,78259259
Variance	173,5783713	195,5105547
Observations	1134	1998
Pooled Variance	187,5715247	
t Stat	-1,873275727	
P(T<=t) one-tail	0,030561722	
P(T<=t) two-tail	0,061123443	

t-Test: Two-Sample Assuming Equal Variances

Economics Department

	English	*Bahasa Indonesia*
Mean	71,7146696	70,94989396
Variance	208,9641773	230,9733431
Observations	454	1226
t Stat	0,927963211	
P(T<=t) one-tail	0,176780055	
P(T<=t) two-tail	0,35356011	

t-Test: Two-Sample Assuming Equal Variances

Macroeconomics

	English	*Bahasa Indonesia*
Mean	77,41657	76,44767
Variance	122,3531	83,86011
Observations	356	43
Pooled Variance	118,2808	
t Stat	0,551816	
P(T<=t) one-tail	0,290693	
P(T<=t) two-tail	0,581385	

t-Test: Two-Sample Assuming Equal Variances
Mathematisc for
Economics and Business

	English	*Bahasa Indonesia*
Mean	76,06122	67,76732
Variance	198,7119	261,0112
Observations	237	355
Pooled Variance	236,0915	
t Stat	6,434964	
P(T<=t) one-tail	1,28E-10	
P(T<=t) two-tail	2,56E-10	

t-Test: Two-Sample Assuming Equal Variances
Microeconomics

	English	*Bahasa Indonesia*
Mean	66,65702	72,09408
Variance	139,8585	150,0188
Observations	57	314
Pooled Variance	148,4769	
t Stat	-3,0992	
P(T<=t) one-tail	0,001045	
t Critical one-tail	1,648994	
P(T<=t) two-tail	0,002089	
t Critical two-tail	1,966414	

t-Test: Two-Sample Assuming Equal Variances
Statistics for Economics and Business

	Bahasa Indonesia	*English*
Mean	64,72502128	64,7413
Variance	321,3406516	119,5924
Observations	235	115
Pooled Variance	255,2506919	
Hypothesized Mean Difference	0	
df	348	
t Stat	-0,008955744	
P(T<=t) one-tail	0,496429789	
t Critical one-tail	1,649244025	
P(T<=t) two-tail	0,992859577	
t Critical two-tail	1,966804153	

t-Test: Two-Sample Assuming Equal Variances

Marketing Management

	English	*Bahasa Indonesia*
Mean	72,66667	76,80641
Variance	216,8188	72,16352
Observations	12	192
Pooled Variance	80,04078	
Hypothesized Mean Difference	0	
Df	202	
t Stat	-1,55505	
P(T<=t) one-tail	0,06075	
t Critical one-tail	1,652432	
P(T<=t) two-tail	0,1215	
t Critical two-tail	1,971777	

t-Test: Two-Sample Assuming Equal Variances

Introduction to Management Science

	English	*Bahasa Indonesia*
Mean	78,61333	73,59
Variance	87,22184	198,6608
Observations	42	147
Pooled Variance	174,2276	
Hypothesized Mean Difference	0	
df	187	
t Stat	2,175133	
P(T<=t) one-tail	0,015438	
t Critical one-tail	1,653043	
P(T<=t) two-tail	0,030875	
t Critical two-tail	1,972731	

t-Test: Two-Sample Assuming Equal Variances: Accounting Department

	English	*Bahasa Indonesia*
Mean	70,63073712	76,57932836
Variance	175,1041785	99,97399955
Observations	563	268
Pooled Variance	150,906642	
Hypothesized Mean Difference	0	
Df	829	
t Stat	-6,525007751	
P(T<=t) one-tail	5,91304E-11	
t Critical one-tail	1,646693776	
P(T<=t) two-tail	1,18261E-10	
t Critical two-tail	1,962829702	

t-Test: Two-Sample Assuming Equal Variances: Advance Financial Accounting (*Akuntansi Keuangan 1 Lanjutan*)

	Bahasa Indonesia	*English*
Mean	59,8	70,6387
Variance	189,6300706	198,283
Observations	18	247
Pooled Variance	197,7236792	
Hypothesized Mean Difference	0	
df	263	
t Stat	-3,157262098	
P(T<=t) one-tail	0,000889081	
t Critical one-tail	1,650668012	
P(T<=t) two-tail	0,001778162	
t Critical two-tail	1,969024974	

Lecturer's Performances

t-Test: Two-Sample Assuming Equal Variances
EDOM: Overall

	English	*Bahasa Indonesia*
Mean	4,9009459	4,766992
Variance	0,1171008	0,199072
Observations	37	64
Pooled Variance	0,1692641	
Hypothesized Mean Difference	0	
Df	99	
t Stat	1,5765315	
P(T<=t) one-tail	0,0590468	
t Critical one-tail	1,6603912	
P(T<=t) two-tail	0,1180936	
t Critical two-tail	1,984217	

t-Test: Two-Sample Assuming Equal Variances
EDOM: A-Component

	English	*Bahasa Indonesia*
Mean	4,896756757	4,781406
Variance	0,1512003	0,244984
Observations	37	64
Pooled Variance	0,210880649	
Hypothesized Mean Difference	0	
Df	99	
t Stat	1,216273667	
P(T<=t) one-tail	0,113386336	
t Critical one-tail	1,660391156	
P(T<=t) two-tail	0,226772673	
t Critical two-tail	1,984216952	

t-Test: Two-Sample Assuming Equal Variances
EDOM: B-Component

	English	*Bahasa Indonesia*
Mean	4,902432	4,756563
Variance	0,13803	0,221994
Observations	37	64
Pooled Variance	0,191462	
Hypothesized Mean Difference	0	
Df	99	
t Stat	1,614191	
P(T<=t) one-tail	0,054835	
t Critical one-tail	1,660391	
P(T<=t) two-tail	0,109669	
t Critical two-tail	1,984217	

t-Test: Two-Sample Assuming Equal Variances

EDOM: C-Component

	English	*Bahasa Indonesia*
Mean	4,937027	4,778281
Variance	0,111577	0,191767
Observations	37	64
Pooled Variance	0,162607	
Hypothesized Mean Difference	0	
Df	99	
t Stat	1,906175	
P(T<=t) one-tail	0,029764	
t Critical one-tail	1,660391	
P(T<=t) two-tail	0,059528	
t Critical two-tail	1,984217	

t-Test: Two-Sample Assuming Equal Variances

EDOM: D-Component:

	English	*Bahasa Indonesia*
Mean	4,867567568	4,751719
Variance	0,101846697	0,192789
Observations	37	64
Pooled Variance	0,159719111	
Hypothesized Mean Difference	0	
Df	99	
t Stat	1,403599889	
P(T<=t) one-tail	0,0817835	
t Critical one-tail	1,660391156	
P(T<=t) two-tail	0,163566999	
t Critical two-tail	1,984216952	